In the claims: The claims are as follows.

1. (Currently amended) A method by which a radio access network
(16) coupled to a core network (18) monitors wireless
transmission of packets according to a layered protocol, the
radio access network (16) including equipment implementing a
radio layer (12) and an upper layer (14) of the layered protocol,
the radio layer (12) and the upper layer (14) distinguished at
least in that the radio layer (12) receives data as packets from
the upper layer (14) and prepares the data for transmission over
the air by forming radio frames corresponding to the packets, the
method characterized by:

a step (23) of slow release in which the upper layer (14)
removes from a buffer maintained by the upper layer (14) the
oldest packet in the buffer when the buffer is full and a new
packet arrives, and does so independently of whether the oldest
packet has been acknowledged by the radio layer (12) of the
terminal; and

a step (24) of local acknowledgement in which the radio
layer (12) sends a local acknowledgement to the upper layer (14)
on the occurrence of a predetermined event.

2. (Currently amended) A method as in claim 1, further
characterized in that in the step (24) of local acknowledgement,
the radio layer (12) includes with the local acknowledgement a
sequence number.

3. (Currently amended) A method as in claim 2, further
characterized in that the upper layer (14) removes the packet in
the buffer having a sequence number equal to the sequence number
included with the local acknowledgement, and also removes all
older packets in the buffer.

4.   (Currently amended) A method as in claim 1, further characterized in that the step (24) of local acknowledgment triggers special mode buffer management by the upper layer (14) in which the step (23) of slow release is at least temporarily discontinued and steps (26) are performed in which packets are instead removed by the upper layer (14) whenever a subsequent local acknowledgement is received along with a sequence number, the upper layer (14) then removing the packet with the sequence number accompanying the local acknowledgement as well as all older packets.

5.   (Currently amended) A method as in claim 4, further characterized by a step (27) of returning to a normal-mode buffer management upon receiving a trigger-to-normal-mode local acknowledgment.

6.   (Currently amended) A method as in claim 5, wherein the trigger-to-normal-mode local acknowledgment is identified as such by the upper layer (14) on the basis of whether or not it includes a sequence number.

7.   (Currently amended) A method as in claim 5, wherein the trigger-to-normal-mode local acknowledgment is identified as such by the upper layer (14) on the basis of whether or not a flag it includes is set.

8.   (Original) A method as in claim 7, wherein the local acknowledgment includes a sequence number.

9.   (Currently amended) A method as in claim 8, wherein the sequence number serves as a signal to the upper layer (14) to remove the packet with the sequence number as well as all older packets.

10.   (Original) A method as in claim 7, wherein the local acknowledgment does not include a sequence number.

11.   (Currently amended) A method as in claim 5, wherein the trigger-to-normal-mode local acknowledgment is identified as such by the upper layer ~~(14)~~ on the basis of whether or not it is a different type of message than the local acknowledgment triggering special mode buffer management.

12.   (Original) A method as in claim 11, wherein the local acknowledgment includes a sequence number.

13.   (Currently amended) A method as in claim 12, wherein the sequence number serves as a signal to the upper layer ~~(14)~~ to remove the packet with the sequence number as well as all older packets.

14.   (Original) A method as in claim 11, wherein the local acknowledgment does not include a sequence number.

15.   (Currently amended) A method as in claim 4, wherein the upper layer ~~(14)~~ does not remove packets from the buffer while in special mode unless the buffer is full.

16.   (Currently amended) A method as in claim 4, wherein the upper layer ~~(14)~~ uses a larger buffer while in special mode.

17.   (Original) A method as in claim 4, further characterized in that the local acknowledgement is included with a handover trigger message.

18.   (Currently amended) A method as in claim 1, further characterized in that in the step ~~(24)~~ of local acknowledgement

the radio layer signals to the upper layer (14) a release of the buffer to a target entity.

19. (Currently amended) A computer program product comprising: a computer readable storage structure embodying computer program code thereon for execution by one or more computer processors in a radio access network (16), with said computer program code characterized in that it includes instructions for performing the steps of the method of claim 1.

20. (Currently amended) A radio access network (16) comprising equipment (12 14) comprising means for performing the method of claim 1.

21. (Currently amended) A radio access network (16) coupled to a core network (18) of a wireless communication system, the radio access network (16) comprising elements for use in monitoring wireless transmission of packets according to a layered protocol, the elements including equipment implementing a radio layer (12) and an upper layer (14) of the layered protocol, the radio layer (12) and the upper layer (14) distinguished at least in that the radio layer (12) receives data as packets from the upper layer (14) and prepares the data for transmission over the air by forming radio frames corresponding to the packets, the radio access network (16) characterized in that:

the upper layer (14) performs buffer management according to either a normal mode (23) or a special mode (27) and in the normal mode (23) the upper layer (14) performs a slow release procedure in which it removes from a buffer it maintains the oldest packet in the buffer when the buffer is full and a new packet arrives, and does so independently of whether the oldest

packet has been acknowledged by the radio layer (12) of the terminal; and

the radio layer (12) triggers (24) the upper layer (14) to perform buffer management according to the special mode (27) by sending a local acknowledgment to the upper layer (14) on the occurrence of a predetermined event.

22. (Currently amended) A radio access network (16) as in claim 21, further characterized in that in triggering (24) buffer management according to the special mode (27), the radio layer (12) includes with the local acknowledgement a sequence number.

23. (Currently amended) A radio access network (16) as in claim 21, further characterized in that in special mode the upper layer (14) at least temporarily discontinues the slow release procedure and instead removes packets from the buffer whenever a subsequent local acknowledgement is received along with a sequence number, the upper layer then removing the packet with the sequence number accompanying the local acknowledgement as well as all older packets.

24. (Currently amended) A radio access network (16) as in claim 23, further characterized in that the radio layer (12) triggers the upper layer (14) to return to normal mode by providing to the upper layer (14) a trigger-to-normal-mode local acknowledgment.

25. (Currently amended) A radio access network (16) as in claim 21, further characterized in that upon receiving the local acknowledgement, the upper layer (14) releases the buffer to a target entity instead of performing buffer management according to the special mode.

26. (Currently amended) A wireless communication system,

comprising a core network (18), a terminal (11), and a radio access network (16) according to claim 20 and communicatively coupling the terminal (11) to the core network (18).